AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A plasma buildup method for building up an optical fiber preform, comprising the following steps:

providing a plasma torch having an outlet nozzle adjacent to a primary preform ~~perform~~, wherein an interaction zone is defined between the outlet nozzle and the primary preform;

feeding the plasma torch with a plasma-generating gas in the presence of a silica-based material so as to deposit a buildup material on the primary preform; and

introducing a reducing element into the interaction zone,

wherein the reducing element reacts ~~reacting~~ to induce reduction of the nitrogen oxides produced by interaction between nitrogen and oxygen in the presence of the plasma generated by the torch,

wherein the reducing element is introduced in the gaseous state, and

wherein said gaseous reducing element is selected from the group consisting of ammonia and carbon monoxide.

2. (canceled).

3. (currently amended): A method according to claim 1 ~~2~~, further comprising a step of introducing another reducing element into the plasma torch, said other reducing element constituting at least a portion of said plasma-generating gas.

4. (canceled).

5. (currently amended): ~~A method according to claim 1~~A plasma buildup method for building up an optical fiber preform, comprising the following steps:

providing a plasma torch having an outlet nozzle adjacent to a primary preform, wherein an interaction zone is defined between the outlet nozzle and the primary preform;

feeding the plasma torch with a plasma-generating gas in the presence of a silica-based material so as to deposit a buildup material on the primary preform; and

introducing a reducing element into the interaction zone,

wherein the reducing element reacts to induce reduction of the nitrogen oxides produced by interaction between nitrogen and oxygen in the presence of the plasma generated by the torch, and

wherein the reducing element is introduced in a solid state.

6. (previously presented): A method according to claim 5, wherein said solid reducing element is selected from the group consisting of urea, and ammonium fluoride.

7. (previously presented): A method according to claim 1, further comprising a step of introducing another reducing element into said plasma torch upstream from an outlet nozzle.

8. (previously presented) A method according to claim 7, wherein said other reducing element is introduced into a central zone of the plasma torch in which said plasma-generating gas flows.

9. (previously presented) A method according to claim 8, wherein said other reducing element is introduced into said central zone substantially simultaneously with said plasma-generating gas.

10. (previously presented) A method according to claim 7, wherein said other reducing element is introduced to a periphery of said central zone of the plasma torch.

11. (previously presented) A method according to claim 1, wherein said other reducing element is introduced into said plasma torch at an end of said outlet nozzle.

12. (currently amended) A method according to claim 11, wherein said other reducing element is introduced to a periphery of said end of the outlet nozzle at ~~at~~ least one location.

13. (Canceled).

14. (Withdrawn) Plasma buildup apparatus (1) for building up an optical fiber preform (2), the apparatus comprising a plasma torch (3) fed with a plasma-generating gas by primary feed means (5) and arranged to enable a buildup material to be deposited on a primary preform (2) for building up in the presence of a silica-based material, and in which secondary

feed means (9) are arranged to introduce at least one reducing element upstream from said primary preform (2), the reducing element being suitable for reacting to induce reduction of the nitrogen oxides produced by interaction between nitrogen and oxygen in the presence of the plasma generated by the torch.

15. (Withdrawn) Apparatus according to claim 14, in which said secondary feed means (9) are coupled to said plasma torch (3) and arranged to introduce at least one of said reducing elements into the inside of said plasma torch, upstream from an outlet nozzle (7).

16. (Withdrawn) Apparatus according to claim 15, in which said secondary feed means (9) are arranged to introduce said reducing element into a central zone (10) of the plasma torch (3) in which said plasma-generating gas flows.

17. (Withdrawn) Apparatus according to claim 14, in which said secondary feed means (9) are coupled to said plasma torch (3) and arranged to introduce said reducing element to the periphery (11) of said central zone (10) of the plasma torch (3).

18. (Withdrawn) Apparatus according to claim 14, in which said secondary feed means (9) are coupled to said plasma torch (3) and arranged to introduce at least one of said reducing elements at an end of an outlet nozzle (7) of said plasma torch (3).

19. (Withdrawn) Apparatus according to claim 18, in which said secondary feed means (9) are coupled to said plasma torch (3) and arranged to introduce said reducing element to the periphery of said end of the outlet nozzle (7), at at least one location.

20. (Withdrawn) Apparatus according to claim 14, in which said secondary feed means (9) are coupled to said plasma torch (3) and arranged to introduce at least one of said reducing elements into at least one location of an interaction zone (8) extending between said outlet nozzle (7) of the plasma torch (3) and said primary preform (2).